

Amendments to the Drawing(s):

The attached sheet of drawing includes changes to Figures 2 and 3. This sheet replaces the original sheet showing Figures 2-3. In this new sheet, Figures 2-3 have been designated by the legend --Prior Art--.

REMARKS

By this Amendment, claims 1, 3, 4, 8, 10-11, 13, 15, 19, 21, 25, 27, 29-30, 34 and 36 have been amended merely to further recite the claimed subject matter and claims 2, 14 and 26 have been deleted without prejudice or disclaimer. Applicants have amended the currently pending claims in order to expedite prosecution and do not, by this amendment, intend to abandon subject matter of the claims as originally filed or later presented. Moreover, Applicants reserve the right to pursue such subject matter in a continuing application. No new matter has been added. Claims 1-36 are pending in this patent application. Reconsideration of the rejections in view of the remarks below is requested.

Figures 2-3 were objected to for failing to label them with the legend --Prior Art--. In response, the drawings have been amended in the manner suggested by the Examiner. Namely, Figures 2-3 have been designated by the legend --Prior Art--. A replacement sheet including the changes to Figure 2-3 is enclosed herewith. Further, Figure 4 was objected to for including a reference number, 30, not described in the specification and because it shows a rim 50 which the Office Action argues conflicts with the recitation in claim 1 of "no seal is provided between the barrier member and the object". Applicant has amended the specification to identify the aspect of the Figure 4 referenced by number 30. Also, claim 1 has been amended to further recite the claimed invention and thereby obviating the objection to Figure 4 with respect to the language of claim 1. As can be seen in Figure 4, the rim 50 is not coupled between the barrier member and the substrate. Accordingly, reconsideration and withdrawal of the objection to the drawings are respectfully requested.

Claim 25 has been amended to provide antecedent basis for the barrier member. Accordingly, reconsideration and withdrawal of the objection to claim 25 are respectfully requested.

The Office Action rejected claims 21-23, 26-27, 30-31 and 33-34 under 35 U.S.C. §102(e) as anticipated by U.S. patent no. 6,788,477 to Lin ("Lin"). Applicants respectfully traverse the rejection, without prejudice.

Applicant respectfully submits that Lin fails to disclose, teach or suggest a lithographic apparatus comprising, *inter alia*, a liquid supply system comprising at least one immersion liquid inlet port provided on a boundary of the space, not provided on the substrate table, and mechanically isolated from the projection system as recited in independent claim 21 and a lithographic apparatus comprising, *inter alia*, a liquid supply

system comprising at least one immersion liquid inlet port not provided on the substrate table, and an at least one immersion liquid outlet port provided only on the substrate table, or suspended above the substrate table, or both as recited in independent claim 30. Lin only discloses a lithographic apparatus embodiment having the liquid inlet on the substrate table - see, e.g., Figures 1b, 2 and 4 of Lin.

Therefore, for at least the above reasons, Lin fails to disclose, teach or suggest all the features recited by claims 21 and 30. Claims 22-23 and 26-27 depend from claim 21 and claims 31 and 33-34 depend from claim 31 and are, therefore, patentable for at least the same reasons provided above related to respectively claims 21 and 31 and for the additional features recited therein. As a result, Applicants respectfully submit that the rejection under 35 U.S.C. §102(e) of claims 21-23, 26-27, 30-31 and 33-34 in view of Lin should be withdrawn and the claims allowed.

The Office Action rejected claims 21-23 under 35 U.S.C. §102(b) as anticipated by U.S. patent no. 4,509,852 to Tabarelli et al. ("Tabarelli et al."). Applicants respectfully traverse the rejection, without prejudice.

Applicant respectfully submits that Tabarelli et al. fail to disclose, teach or suggest a lithographic apparatus comprising, *inter alia*, a liquid supply system comprising at least one immersion liquid inlet port provided on a boundary of the space, not provided on the substrate table, and mechanically isolated from the projection system as recited in independent claim 21. Tabarelli et al. only disclose a lithographic apparatus embodiment having the liquid inlet on the substrate table - see, e.g., Figures 3 and 4 (wherein container 2 holds the semiconductor disk 4 and is movable in order to displace the disk).

Therefore, for at least the above reasons, Tabarelli et al. fail to disclose, teach or suggest all the features recited by independent claim 21. Claims 22-23 depend from claim 21 and are, therefore, patentable for at least the same reasons provided above related to claim 21 and for the additional features recited therein. As a result, Applicants respectfully submit that the rejection under 35 U.S.C. §102(b) of claims 21-23 in view of Tabarelli et al. should be withdrawn and the claims allowed.

The Office Action rejected claims 1, 13, 21 and 30 under 35 U.S.C. §102(b) as anticipated by U.S. patent no. 4,480,910 to Takanashi et al. ("Takanashi et al."). Applicants respectfully traverse the rejection, without prejudice.

Applicant respectfully submits that Takanashi et al. fail to disclose, teach or suggest a lithographic apparatus comprising, *inter alia*, at least one outlet to remove immersion liquid,

the at least one outlet being radially outwardly of the barrier member as recited in independent claim 1, a device manufacturing method comprising, *inter alia*, removing immersion liquid through at least one outlet positioned radially outwardly of the barrier member as recited in independent claim 13, and a lithographic apparatus, *inter alia*, wherein an at least one immersion liquid outlet port is provided only on the substrate table, or suspended above the substrate table, or both as recited in independent claim 30. Takanashi et al. fail to provide any disclosure regarding a liquid outlet, let alone a location of a liquid outlet. They only describe a liquid inlet – nozzle 13.

With respect to independent claim 21, Applicant respectfully submits that Takanashi et al. fail to disclose, teach or suggest a lithographic apparatus comprising, *inter alia*, at least one immersion liquid inlet port provided on a boundary of the space, not provided on the substrate table, and mechanically isolated from the projection system as recited in independent claim 21. Takanashi et al. only disclose a lithographic apparatus embodiment having the liquid inlet mechanically coupled to the projection system - see, e.g., Figure 3 of Takanashi et al.

Therefore, for at least the above reasons, Takanashi et al. fail to disclose, teach or suggest all the features recited by claims 1, 13, 21 and 30. As a result, Applicants respectfully submit that the rejection under 35 U.S.C. §102(b) of claims 1, 13, 21 and 30 in view of Takanashi et al. should be withdrawn and the claims allowed.

The Office Action rejected claims 1-3, 8, 11-15, 19-23, 26-27, 30-31 and 34 under 35 U.S.C. §102(e) as anticipated by Japanese patent application publication no. JP 10-303114 to Ushida et al. (“Ushida et al.”). Applicants respectfully traverse the rejection, without prejudice.

Applicant notes at the outset that a Japanese patent application publication cannot form the basis of a rejection under 35 U.S.C. §102(e). However, to expedite prosecution, Applicant shall treat the rejection as if it were made under 35 U.S.C. §102(b).

Applicant respectfully submits that the cited portions of Ushida et al. fail to disclose, teach or suggest a lithographic apparatus comprising, *inter alia*, at least one inlet to supply immersion liquid, the at least one inlet not provided on the substrate table as recited in independent claim 1, a device manufacturing method comprising, *inter alia*, providing an immersion liquid to a space between a substrate on a substrate table and a projection system using at least one immersion liquid outlet not provided on the substrate table as recited in independent claim 13, a lithographic apparatus comprising, *inter alia*, a liquid supply system

comprising at least one immersion liquid inlet port provided on a boundary of the space, not provided on the substrate table, and mechanically isolated from the projection system as recited in independent claim 21, and a lithographic apparatus comprising, *inter alia*, a liquid supply system comprising at least one immersion liquid inlet port not provided on the substrate table as recited in independent claim 30. The cited portions of Ushida et al. only disclose lithographic apparatus embodiments having the liquid inlet on the substrate table - see, e.g., Figures 4 and 5 of Ushida et al. and Figure 8 of Ushida et al. (wherein containers 7 and 8 of Figure 8 together hold the wafer 3 and are movable in order to displace the wafer).

Therefore, for at least the above reasons, Ushida et al. fail to disclose, teach or suggest all the features recited by claims 1, 13, 21 and 30. Claims 2-3, 8 and 11-12 depend from claim 1, claims 14-15 and 19-20 depend from claim 13, claims 22-23 and 26-27 depend from claim 21 and claims 31 and 34 depend from claim 30 and are, therefore, patentable for at least the same reasons provided above related to respectively claims 1, 13, 21 and 30 and for the additional features recited therein. As a result, Applicants respectfully submit that the rejection under 35 U.S.C. §102 of claims 1-3, 8, 11-15, 19-23, 26-27, 30-31 and 34 in view of Ushida et al. should be withdrawn and the claims allowed.

The Office Action rejected claims 4 and 24 under 35 U.S.C. §103 as being obvious in view of Ushida et al. further in view of PCT patent application publication no. WO99/49504 to Fukami et al. ("Fukami et al."). Applicants respectfully traverse the rejection, without prejudice.

As noted above, Ushida et al. fail to disclose, teach or suggest independent claims 1 and 21. Claim 4 depends from claim 1 and claim 24 depends from claim 21 and are, therefore, patentable for at least the same reasons provide above regarding Ushida et al. as related to respectively independent claims 1 and 21 and for the additional features recited in those dependent claims.

Further, Fukami et al. fail to overcome the shortcomings of Ushida et al. and/or to independently disclose, teach or suggest the subject matter of independent claims 1 and 21, and hence of claims 4 and 24. For example, Fukami et al. fail to provide any disclosure, teaching or suggestion regarding a lithographic apparatus comprising, *inter alia*, a liquid supply system configured to provide an immersion liquid to a space between the substrate and the projection system, the liquid supply system comprising a barrier member extending along at least a part of the boundary of the space and being in a position relative to an object on the substrate table so that any capillary pressure generated by the immersion liquid

between the barrier member and the object is not large enough to constrain the immersion liquid in the space as recited in independent claim 1. Further, Fukami et al. fail to provide any disclosure, teaching or suggestion regarding a lithographic apparatus, *inter alia*, wherein immersion liquid is not substantially confined in a space between the substrate and the projection system so that immersion liquid can flow out of the space as recited in independent claim 21. As is clear in Fukami et al., the liquid is confined to a space between the substrate and the projection system.

Therefore, for at least the above reasons, Ushida et al. and/or Fukami et al. fail to disclose, teach or suggest all the features recited by claims 4 and 24. As a result, Applicants respectfully submit that the rejection under 35 U.S.C. §103 of claims 4 and 24 in view of Ushida et al. and/or Fukami et al. should be withdrawn and the claims allowed.

The Office Action rejected claims 5-6, 9-10, 16-18, 25, 28-29, 32-33 and 35-36 under 35 U.S.C. §103 as being obvious in view of Ushida et al. further in view of U.S. patent no. 6,781,668 to Schuster et al. ("Schuster et al."). Applicants respectfully traverse the rejection, without prejudice.

As noted above, Ushida et al. fail to disclose, teach or suggest independent claims 1, 13, 21 and 30. Claims 5-6 and 9-10 depend from claim 1, claims 16-18 depend from claim 13, claims 25 and 28-29 depend from claim 21 and claims 32-33 and 35-36 depend from claim 30 and are, therefore, patentable for at least the same reasons provide above regarding Ushida et al. as related to respectively independent claims 1, 13, 21 and 30 and for the additional features recited in those dependent claims.

Further, Schuster et al. fail to overcome the shortcomings of Ushida et al. and/or to independently disclose, teach or suggest the subject matter of independent claims 1, 13, 21 and 30, and hence of claims 5-6, 9-10, 16-18, 25, 28-29, 32-33 and 35-36. For example, Schuster et al. fail to provide any disclosure, teaching or suggestion regarding a liquid supply system or providing liquid to a space between a substrate and projection system.

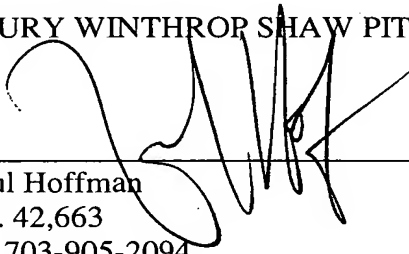
Therefore, for at least the above reasons, Ushida et al. and/or Schuster et al. fail to disclose, teach or suggest all the features recited by claims 5-6, 9-10, 16-18, 25, 28-29, 32-33 and 35-36. As a result, Applicants respectfully submit that the rejection under 35 U.S.C. §103 of claims 5-6, 9-10, 16-18, 25, 28-29, 32-33 and 35-36 in view of Ushida et al. and/or Schuster et al. should be withdrawn and the claims allowed.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance. If questions relating to patentability remain, the Examiner is invited to contact the undersigned to discuss them.

Should any fees be due, please charge them to our deposit account no. 03-3975, under our order no. 081468/0307331. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced deposit account.

Respectfully submitted,

PILLSBURY WINTHROP SHAW PITTMAN LLP



---

Jean-Paul Hoffman  
Reg. No. 42,663  
Tel. No. 703-905-2094  
Fax No. 703-905-2500

JGH  
P. O. Box 10500  
McLean, VA 22102  
(703) 905-2000